#41

OIPE

RAW SEQUENCE LISTING DATE: 08/21/2001 PATENT APPLICATION: US/09/838,718A TIME: 08:14:11

Input Set : A:\Sequence.ST25.txt

Output Set: N:\CRF3\08212001\1838718A.raw

```
ENTERED
      3 <110> APPLICANT: Steidler, Lothar
              Remaut, Erik R.
              Fiers, Walter R.
      7 <120> TITLE OF INVENTION: USE OF A CYTOKINE-PRODUCING LACTOCOCCUS STRAIN TO TREAT
COLITIS
      9 <130> FILE REFERENCE: 2676-4779US
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/838,718A
C--> 11 <141> CURRENT FILING DATE: 2001-04-19
     11 <150> RRIOR APPLICATION NUMBER: PCT/EP99/07800
     12 <151> PRIOR FILING DATE: 1999-10-06
     14 <150> PRIOR APPLICATION NUMBER: EP 98203529.7
     15 <151> PRIOR FILING DATE: 1998-10-20
     17 <160> NUMBER OF SEQ ID NOS: 8
     19 <170> SOFTWARE: PatentIn version 3.1
     21 <210> SEQ ID NO: 1
     22 <211> LENGTH: 21
     23 <212> TYPE: DNA
     24 <213> ORGANISM: Artificial Sequence
     26 <220> FEATURE:
     27 <223> OTHER INFORMATION: Description of Artificial Sequence: primer used for obtaining
the
              plasmid pT1MIL10
     30 <400> SEQUENCE: 1
     31 cagtacagcc gggaagacaa t
                                                                              21
     34 <210> SEQ ID NO: 2
     35 <211> LENGTH: 25
     36 <212> TYPE: DNA
     37 <213> ORGANISM: Artificial Sequence
     39 <220> FEATURE:
     40 <223> OTHER INFORMATION: Description of Artificial Sequence: primer used for obtaining
the
     41
           plasmid pT1MIL10
     43 <400> SEQUENCE: 2
     44 gcactagtta gcttttcatt ttgat
                                                                              25
     47 <210> SEQ ID NO: 3
     48 <211> LENGTH: 21
     49 <212> TYPE: DNA
     50 <213> ORGANISM: Artificial Sequence
     52 <220> FEATURE:
     53 <223> OTHER INFORMATION: Description of Artificial Sequence: primer used for obtaining
the
   54 plasmid pT1TR5AH
     56 <400> SEQUENCE: 3
     57 ctggtccctt ctcttggtga c
                                                                              21
     60 <210> SEQ ID NO: 4
     61 <211> LENGTH: 53
    62 <212> TYPE: DNA
```

63 <213> ORGANISM: Artificial Sequence

65 <220> FEATURE:

66 <223> OTHER INFORMATION: Description of Artificial Sequence: primer used for obtaining

the

67 plasmid pT1TR5AH

RAW SEQUENCE LISTING

DATE: 08/21/2001 TIME: 08:14:11

PATENT APPLICATION: US/09/838,718A

Input Set : A:\Sequence.ST25.txt

Output Set: N:\CRF3\08212001\1838718A.raw

69	<400> SEQUE	NCE: 4					
70	ccactagtct	attaatgatg	atgatgatga	tgcgcagtac	ctgagtcctg	ggg	53
73	<210> SEQ I	D NO: 5					
74	<211> LENGT	н: 5230					
75	<212> TYPE:	DNA					
76	<213> ORGANISM: Artificial Sequence						
78	<220> FEATU	RE:				•	
79	<223> OTHER	INFORMATIO	N: Descript	ion of Arti	ficial Sequ	ence: plasmid	pTREX1
81	<400> SEQUE	NCE: 5					
82	gaattcgatt	aagtcatctt	acctcttta	ttagtttttt	cttataatct	aatgataaca	60
84	tttttataat	taatctataa	accatatccc	tctttggaat	caaaatttat	tatctactcc	120
86	tttgtagata	tgttataata	caagtatcag	atctgggaga	ccacaacggt	ttcccactag	180
88	aaataatttt	gtttaacttt	agaaaggaga	tatacgcatg	caggatatct	ctagaatgga	240
90	tccggctgct	aacaaagccc	gaaaggaagc	tgagttggct	gctgccaccg	ctgagcaata	300
92	actagcataa	ccccttgggg	cctctaaacg	ggtcttgagg	ggttttttgc	tgaaaggagg	360
94	aactatatcc	ggatgacctg	caggcaagct	ctagaatcga	tacgattttg	aagtggcaac	420
96	agataaaaaa	aagcagttta	aaattgttgc	tgaactttta	aaacaagcaa	atacaatcat	480
98	tgtcgcaaca	gatagcgaca	gagaaggcga	aaacattgcc	tggtcgatca	ttcataaagc	540
100	aaatgccttt	tctaaagata	aaacgtataa	aagactatgg	atcaatagtt	tagaaaaaga	600
102	tgtgatccgt	agcggttttc	aaaatttgca	accaggaatg	aattactatc	ccttttatca	660
						tataatggga	720
					taaaaatcga		780
108	aatggcggaa	acgtaaaaga	agttatggaa	ataagactta	gaagcaaact	taagagtgtg	840
110	ttgatagtgc	agtatcttaa	aattttgtat	aataggaatt	gaagttaaat	tagatgctaa	900
112	aaatttgtaa	ttaagaagga	gtgattacat	gaacaaaaat	ataaaatatt	ctcaaaactt	960
						aagaaaccga	1020
					acgaaactgg		1080
					aacttatcgt		1140
					ctacagtttc		1200
					ttaagcacac		1260
					attgttgaag		1320
					ttgcacactc		1380
					aaaccaaaag		1440
		_	_		aaatattgga	-	1500
					ctgtttacta		1560
	_	-	_	_	accgttactt		1620
					aaataattct		1680
					agataaatta		1740
					cttatcatgg		1800
					gaaatgggac		1860
					aggagacggg		1920
			-		atatttttg		1980
					gctagtgcac		2040
					aaagccgtag		2100
					tggccgttag		2160
					gacactgggc		2220
					aacggctctt		2280
	_				cccaagaatt		2340
T60	agatcaaatt	attcacgaat	agaatcagga	aaatcagatc	caaccataaa	aacactagaa	2400

DATE: 08/21/2001 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/838,718A TIME: 08:14:11

Input Set : A:\Sequence.ST25.txt
Output Set: N:\CRF3\08212001\1838718A.raw

160	aaaattaaaa	2011220122	atassagats	at a at a a a t t	taatoooaaa	+ 424442242	2460
				gtagtggatt			2520
				gtaacattgg			2520
				gaaatcgttg			2640
	-	_		aatagaaacg			
	-			gcatagcccg		_	2700
	-			cgtaagaagt			2760
				tagggaaatc			2820
		-	-	caatcggaaa			2880
				aatcatgatg			2940
				aatatctata			3000
				acaaaatcag			3060
				aataacaaaa			3120
				ttttcaaaac			3180
				${\tt acctattta}$			3240
		•		gaaactgtgc			3300
		_	-	atcactacca			3360
194	gctatttttg	cgtatcgctc	aaaatcaagc	atgattggcg	gtcgtggtgt	tgttctgact	3420
196	tccgaggaag	cgattcaaga	aaatcaagat	acatttacac	attggacacc	caacgtttat	3480
198	cgttatggaa	cgtatgcaga	cgaaaaccgt	tcatacacga	aaggacattc	tgaaaacaat	3540
200	ttaagacaaa	tcaatacctt	ctttattgat	tttgatattc	acacggcaaa	agaaactatt	3600
202	tcagcaagcg	atattttaac	aaccgctatt	gatttaggtt	ttatgcctac	tatgattatc	3660
204	aaatctgata	aaggttatca	agcatatttt	gttttagaaa	cgccagtcta	tgtgacttca	3720
206	aaatcagaat	ttaaatctgt	caaagcagcc	aaaataattt	cgcaaaatat	ccgagaatat	3780
208	tttggaaagt	ctttgccagt	tgatctaacg	tgtaatcatt	ttggtattgc	tcgcatacca	3840
210	agaacggaca	atgtagaatt	ttttgatcct	aattaccgtt	attctttcaa	agaatggcaa	3900
212	gattggtctt	tcaaacaaac	agataataag	ggctttactc	gttcaagtct	aacggtttta	3960
				gaaccctggt			4020
				gggcgtaata			4080
				gaaacgtgcg			4140
				aaagaagtaa			4200
	-	-		gaatacatta	_		4260
				tttgtccgtc			4320
				ttgtcagaat			4380
				ccttatttag			4440
				ttagataaat			4500
				ggaagaaatg			4560
				gtaaaaaaag			4620
	=		=	catacattca		-	4680
				ctcgatttgt		_	4740
				atatctatga			4800
				cagagtaaga			4860
				gttggcttgg			4920
				cgaagcgaac			4980
				ttgtcctata			5040
				atattagagg			5100
				agttcttgtg			5160
				tgtcttgttg			5220
	tgattaaata	LLLLYALLE	ccyycycycy	Lytottytty	ccaycactig	clayicaaay	5230
	<210> SEQ I	'D NO . 6)	3230
233	/210/ SEQ 1	ָס וּטאַע.				,	

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/838,718A

DATE: 08/21/2001 TIME: 08:14:11

Input Set : A:\Sequence.ST25.txt

Output Set: N:\CRF3\08212001\I838718A.raw

260 <211> LENGTH: 5906 261 <212> TYPE: DNA 262 <213> ORGANISM: Artificial Sequence 264 <220> FEATURE: 265 <223> OTHER INFORMATION: Description of Artificial Sequence: plamsid pT1NX 267 <400> SEQUENCE: 6 268 gaattcgatt aagtcatctt acctctttta ttagtttttt cttataatct aatgataaca 60 270 tttttataat taatctataa accatatccc tctttggaat caaaatttat tatctactcc 120 272 tttgtagata tgttataata caagtatcag atctgggaga ccacaacggt ttcccactag 180 274 aaataatttt gtttaacttt agaaaggaga tatacgcatg aaaaaaaaga ttatctcagc 240 276 tattttaatg tetacagtea taetttetge tgeageeeeg ttgteaggtg tttacgeegg 300 278 cgacggatcc aaaagaggaa gacaataaca agcctggcaa agaagacaat aacaagcctg 360 280 gcaaagaaga caataacaag cctggcaaag aagacaacaa caagcctggc aaagaagaca 420 282 acaacaagcc tggtaaagaa gacaacaaca agcctggcaa agaagacggc aacaagcctg 480 284 gtaaagaaga caacaaaaaa cctggtaaag aagatggcaa caagcctggt aaagaagaca 540 286 acaaaaaacc tggtaaagaa gacggcaaca agcctggcaa agaagatggc aacaaacctg 600 288 gtaaagaaga tggtaacgga gtacatgtcg ttaaacctgg tgatacagta aatgacattg 660 290 caaaagcaaa cggcactact gctgacaaaa ttgctgcaga taacaaatta gctgataaaa 720 292 acatgatcaa acctggtcaa gaacttgttg ttgataagaa gcaaccagca aaccatgcag 780 294 atgctaacaa agctcaagca ttaccagaaa ctggcgaaga aaatccattc atcggtacaa 840 296 ctgtatttgg tggattatca ttagccttag gtgcagcgtt attagctgga cgtcgtcgcg 900 298 aactataact agtagateeg getgetaaca aageeegaaa ggaagetgag ttggetgetg 960 300 ccaccgctga gcaataacta gcataacccc ttgggggcctc taaacgggtc ttgaggggtt 1020 302 ttttgctgaa aggaggaact atatccggat gacctgcagg caagctctag aatcgatacg 1080 304 attttgaagt ggcaacagat aaaaaaaagc agtttaaaat tgttgctgaa cttttaaaac 1140 306 aagcaaatac aatcattgtc gcaacagata gcgacagaga aggcgaaaac attgcctggt 1200 308 cgatcattca taaagcaaat gccttttcta aagataaaac gtataaaaga ctatggatca 1260 310 atagtttaga aaaagatgtg atccgtagcg gttttcaaaa tttgcaacca ggaatgaatt 1320 312 actatccctt ttatcaagaa gcgcaaaaga aaaacgaaat gatacaccaa tcagtgcaaa 1380 314 aaaagatata atgggagata agacggttcg tgttcgtgct gacttgcacc atatcataaa 1440 316 aatcgaaaca gcaaagaatg gcggaaacgt aaaagaagtt atggaaataa gacttagaag 1500 318 caaacttaag agtgtgttga tagtgcagta tcttaaaatt ttgtataata ggaattgaag 1560 320 ttaaattaga tgctaaaaat ttgtaattaa gaaggagtga ttacatgaac aaaaatataa 1620 322 aatattctca aaacttttta acgagtgaaa aagtactcaa ccaaataata aaacaattga 1680 324 atttaaaaga aaccgatacc gtttacgaaa ttggaacagg taaagggcat ttaacgacga 1740 326 aactggctaa aataagtaaa caggtaacgt ctattgaatt agacagtcat ctattcaact 1800 328 tatogtoaga aaaattaaaa otgaatacto gtgtoacttt aattoaccaa gatattotac 1860 330 agtttcaatt ccctaacaaa cagaggtata aaattgttgg gagtattcct taccatttaa 1920 332 gcacacaaat tattaaaaaa gtggtttttg aaagccatgc gtctgacatc tatctgattg 1980 334 ttgaagaagg attctacaag cgtaccttgg atattcaccg aacactaggg ttgctcttgc 2040 336 acactcaagt ctcgattcag caattgctta agctgccagc ggaatgcttt catcctaaac 2100 338 caaaagtaaa cagtgtctta ataaaactta cccgccatac cacagatgtt ccagataaat 2160 340 attggaaget atatacgtae tttgtttcaa aatgggtcaa tcgagaatat cgtcaactgt 2220 342 ttactaaaaa tcagtttcat caagcaatga aacacgccaa agtaaacaat ttaagtaccg 2280 344 ttacttatga gcaagtattg tctattttta atagttatct attatttaac gggaggaaat 2340 346-aattetatga gtegettttg taaattttgga-aagttacaeg ttactaaagg gaatgtagat 24.00 348 aaattattag gtatactact gacagettee aaggagetaa agaggteeet agegetetta 2460 350 tcatggggaa gctcggatca tatgcaagac aaaataaact cgcaacagca cttggagaaa 2520 352 tgggacgaat cgagaaaacc ctctttacgc tggattacat atctaataaa gccgtaagga 2580

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/838,718A

DATE: 08/21/2001
TIME: 08:14:11

Input Set : A:\Sequence.ST25.txt

Output Set: N:\CRF3\08212001\1838718A.raw

354	gacgggttca	aaaaggttta	aataaaggag	aagcaatcaa	tgcattagct	agaactatat	2640
					agaccagtta		2700
					cactgtatat		2760
360	ccgtagaaga	attaaaagca	agaggagaat	ttagagaaga	tttaatgcca	tatgcgtggc	2820
362	cgttaggatg	ggaacatatc	aattttcttg	gagaatacaa	atttgaagga	ttacatgaca	2880
364	ctgggcaaat	gaatttacgt	cctttacgta	taaaagagcc	gttttattct	taatataacg	2940
366	gctcttttta	tagaaaaaat	ccttagcgtg	gtttttttcc	gaaatgctgg	cggtacccca	3000
					tcaggaaaat		3060
370	cataaaaaca	ctagaacaaa	ttgcaaagtt	aactaactca	acgctagtag	tggatttaat	3120
					gaacaagtaa		3180
					atgcacgaaa		3240
					gaactgaata		3300
378	aagagccatg	acacatttat	aaaatgtttg	acgacatttt	ataaatgcat	agcccgataa	3360
380	gattgccaaa	ccaacgctta	tcagttagtc	agatgaactc	ttccctcgta	agaagttatt	3420
					attatatagg		3480
384	agttttcaag	tatctaagct	actgaattta	agaattgtta	agcaatcaat	cggaaatcgt	3540
386	ttgattgctt	tttttgtatt	catttataga	aggtggagtt	tgtatgaatc	atgatgaatg	3600
					ttagcaaata		3660
					ttagaaacaa		3720
					atagaaaata		3780
					aaatcttttt		3840
396	aatattgaaa	cagttgaatg	aaaaagcaaa	ccaagttaat	taaacaacct	attttatagg	3900
					gttgtagaaa		3960
					cgctcaatca		4020
					tcaagcatga		4080
				-	caagatacat		4140
					aaccgttcat		4200
					attgattttg		4260
					gctattgatt		4320
					tattttgttt		4380
					gcagccaaaa		4440
					ctaacgtgta		4500
					gatcctaatt		4560
					aataagggct		4620
					gtagatgaac		4680
					ttaatagggc		4740
					tcaatcgaaa		4800
					gaagaaaaag		4860
					aatagggaat		4920
			-		gatttatttg		4980
					gttcatttgt		5040
					tacaagcctt		5100
					cggacattag		5160
					aaaccaggaa		5220
					attaaagtaa		5280
					ttagagcata		5340
					acacaactcg		5400
					acatttatat		5460
					aatatacaga		5520
		, ,			_	_	



VERIFICATION SUMMARY

PATENT APPLICATION: US/09/838,718A

DATE: 08/21/2001 TIME: 08:14:12

Input Set : A:\Sequence.ST25.txt
Output Set: N:\CRF3\08212001\1838718A.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date